Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

In the Matter of)	
)	
AT&T Petition to Launch a Proceeding)	GN Docket No. 12-353
Concerning the TDM-to-IP Transition)	
)	
Petition of the National Telecommunications)	
Cooperative Association for a Rulemaking to)	
Promote and Sustain the Ongoing TDM-to-IP)	
Evolution)	

COMMENTS OF COMPETITIVE CARRIERS ASSOCIATION

Steven K. Berry Rebecca Murphy Thompson COMPETITIVE CARRIERS ASSOCIATION 805 15th Street NW, Suite 401 Washington, DC 20005

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Competitive Carriers Association ("CCA") hereby submits these comments in response to the Petitions filed by AT&T and the National Telecommunication Cooperative Association ("NTCA") in the above-captioned proceeding.¹

INTRODUCTION AND SUMMARY

CCA welcomes the opportunity to offer comment on a critical policy challenge facing the Commission: managing the transition from telecommunications networks based on time-division multiplexing ("TDM") technology to those based on Internet Protocol ("IP") technology. The Petitions filed by AT&T and NTCA present overlapping, though not always compatible, visions of accomplishing this transition. AT&T asks the Commission to "consider conducting, for select wire centers chosen by incumbent local exchange carriers ("ILECs") that elect to participate, trial runs of the transition to next generation services," so that both industry participants and the Commission can explore "the technological and policy dimensions of the TDM-to-IP

See AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition (filed Nov. 7, 2012) ("AT&T Petition"); Petition of the National Telecommunications Cooperative Association for a Rulemaking to Promote and Sustain the Ongoing TDM-to-IP Evolution (filed Nov. 19, 2012) ("NTCA Petition"); see also Public Notice, Pleading Cycle Established on AT&T and NTCA Petitions, DA 12-1999 (rel. Dec. 14, 2012).

transition." AT&T also identifies various perceived "legal and regulatory impediments" that it urges the Commission to remove from "the trial itself and the ultimate transition to all-IP networks and services." NTCA similarly proposes that the Commission consider eliminating, modifying, or clarifying "existing regulations that may have limited or no applicability in the delivery of IP-enabled services," although, unlike AT&T, NTCA makes clear that any regulatory effort should expressly confirm that "all interconnection for the exchange of traffic subject to sections 251 and 252 is governed by the Act, regardless of the technology that might happen to be used to achieve such interconnection." In addition, NTCA asserts that the Commission should create new economic incentives for rural local exchange carriers ("RLECs") to deploy IP-based networks.

In CCA's view, AT&T's proposal to conduct trial runs of the TDM-to-IP transition in certain wire centers represents a sensible approach to exploring the technical and economic issues raised by the transition. As long as ILECs remain obligated to interconnect their networks and exchange traffic on just, reasonable, and cost-based terms and conditions, CCA does not object to AT&T's and NTCA's proposals for the Commission to grant "targeted" relief from certain regulatory burdens where appropriate, including by enabling ILECs to "retire legacy TDM-based services and networks" in trial areas. Eliminating the need to maintain duplicative TDM and IP networks would advance the Commission's stated goal of "accelerat[ing] the

² AT&T Petition at 1.

³ *Id.* at 6.

⁴ NTCA Petition at 11.

⁵ *Id.* at 14 (emphasis in original).

⁶ *Id.* at 14-15.

See NTCA Petition at 1-2.

AT&T Petition at 12.

transition from circuit-switched to IP networks." Indeed, for many of CCA's members, the retirement of ILECs' TDM networks will facilitate more efficient interconnection arrangements; as CCA has noted in other proceedings, ILECs historically have been able to increase rivals' costs and diminish service quality by insisting that interconnecting competitive carriers convert traffic to TDM format before handing it off. A more rapid transition from legacy TDM networks to all-IP networks would help alleviate these significant competitive concerns.

The Commission should not, however, entertain any proposal that would enable ILECs with IP-based networks to avoid their core interconnection obligations under Sections 251 and 252 of the Communications Act of 1934, as amended (the "Act"). As discussed in greater detail below, the technology-neutral interconnection mandates in Section 251 apply to IP-based telecommunications networks just as they do to TDM-based networks. Moreover, the policy justifications for requiring ILECs to provide interconnection and to submit to arbitration—namely, the ubiquity of ILECs' telecommunications networks and market power that these pervasive networks confer—arise regardless of the technology used by those networks to transmit and exchange telecommunications traffic. Thus, while competitive carriers and incumbent LECs should continue to be free to negotiate interconnection arrangements in the first instance, consistent with Section 252 of the Act, the statutory interconnection mandates and arbitration provisions remain critical safeguards, and the Commission should make clear that

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See Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions, Notice of Proposed Rulemaking, 27 FCC Rcd 12357 ¶ 2 (2012); see also Connect America Fund et al., Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663 ¶ 1335 (2011) ("USF/ICC Transformation Order" or "CAF FNPRM") ("[T]he Commission has set an express goal of facilitating industry progression to all-IP networks.").

See, e.g., Reply Comments of RCA—The Competitive Carriers Association, WC Docket Nos. 10-90 *et al.*, at 2 (filed Mar. 30, 2012) ("CCA IP Interconnection Reply").

ILECs continue to be subject to these obligations even in areas where they have deployed IP-based networks.

Moreover, as discussed below, the Commission should decline NTCA's proposal to grant additional government subsidies to rural local exchange carriers ("RLECs") in connection with the TDM-to-IP transition. While NTCA contends that RLECs require further incentives to deploy IP-based networks (in the form of government-mandated, artificially high IP interconnection rates, as well as additional universal service support), it also asserts that RLECs have "led the IP evolution to date" by drawing on a mix of substantial private investments and preexisting government subsidies. Thus, by NTCA's own account, the current funding flowing to RLECs appears to be more than adequate to drive the TDM-to-IP transition in RLECs' service areas; the fact that IP technology has been widely recognized to *reduce* operating costs further undermines the case for increased subsidies.

DISCUSSION

I. THE COMMISSION SHOULD MAINTAIN ILECS' INTERCONNECTION AND ARBITRATION OBLIGATIONS UNDER SECTIONS 251 AND 252 DURING AND AFTER THE TDM-TO-IP TRANSITION

As part of any Commission-managed transition from TDM-to-IP voice networks, the Commission should make clear that ILECs undergoing this transition remain subject to the interconnection and arbitration requirements of Sections 251 and 252 of the Act. NTCA's Petition squarely supports this approach, even going so far as to assert that the Commission "could perhaps best accelerate the continuing IP evolution in the near-term by . . . confirming that *all* interconnection for the exchange of traffic subject to [S]ections 251 and 252 is governed by the Act, regardless of the technology that might happen to be used to achieve such

See, e.g., NTCA Petition at 14-15.

¹² *Id.* at 3.

interconnection "13 CCA is concerned, however, that AT&T's Petition appears to contemplate relaxing or eliminating interconnection and arbitration obligations for ILECs in areas where the TDM-to-IP transition is ongoing or complete. As noted above, while CCA does not object to granting ILECs targeted regulatory relief from certain legacy obligations in areas where they are deploying IP networks, the Act's interconnection mandates and arbitration provisions remain necessary to ensure that competitive carriers can exchange telecommunications traffic with ILECs' ubiquitous and entrenched networks on a reasonable and nondiscriminatory basis.

Guaranteeing the seamless connectivity of telecommunications networks has long been a core principle of national communications policy. The Commission has recognized that "[b]asic interconnection regulations" have been "a central tenet of telecommunications regulatory policy for over a century," and that "[f]or competition to thrive, the principle of interconnection . . . needs to be maintained." When the Commission first crafted its rules related to the regulatory treatment of mobile services, it found that the public interest required LECs to provide

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NTCA Petition at 14 (emphasis in original).

For instance, AT&T's Petition urges the Commission to ensure that AT&T's "trial runs" of the TDM-to-IP transition are "free of legacy regulation"—without qualification—and asserts that this "regulatory experiment will show that conventional public-utility-style regulation is no longer necessary or appropriate in the emerging all-IP ecosystem." AT&T Petition at 22. Moreover, AT&T proposes in its Petition that all "IP-enabled services" should be classified as "information services." *Id.* at 18. In other contexts, AT&T has argued that Section 251 interconnection obligations do not apply to "providers of IP-based 'information services." *See* Comments of AT&T, WC Docket No. 10-90 *et al.*, at 34 (filed Feb. 24, 2012).

Connecting America: The National Broadband Plan, at 49 (2010), available at http://download.broadband.gov/plan/national-broadband-plan.pdf (National Broadband Plan); see also Gerald W. Brock, The Telecommunications Industry, The Dynamics of Market Structure 148 (1981); 47 U.S.C. § 251(a), (c)(2).

competitors with (reasonably requested) interconnection arrangements. ¹⁶ It did so even despite its own recognition that "[t]he Commission has in the past found . . . that cellular providers face sufficient competition and that it therefore is in the public interest to relax some Commission policies traditionally applied to non-competitive markets." Despite this deregulatory environment, it would make little sense now for the Commission to walk away from its previous interconnection regulations, when it has been unable for the previous two years to conclude that the wireless marketplace is characterized by "effective competitive." In fact, the FCC was able to handle wireless issues with a "light" regulatory touch because of the strong interconnection framework established in the 1996 Act. Carriers had certainty about their rights and obligations, knowing they could be easily enforced. Compelling interconnection as the fundamental prerequisite fostered a competitive market, allowing operators to enjoy "light" regulatory treatment.

In addition to the critical role that interconnection obligations play in enabling and promoting facilities-based voice competition, interconnection also helps bolster the economic case for broadband deployment in rural areas.¹⁹ The Commission has recognized that where

Implementation of Sections 3(n) and 332 of the Communications Act, GN Docket No. 93-252, Second Report and Order, 9 FCC Rcd 1411 ¶ 230 (1994).

¹⁷ *Id.* at ¶ 145.

Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions with Respect to Mobile Wireless, including Commercial Mobile Services, WT Docket No. 10-133, Fifteenth Report, 26 FCC Rcd 9664 ¶ 2 (2011); Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions with Respect to Mobile Wireless, including Commercial Mobile Services, WT Docket No. 09-66, Fourteenth Report, 25 FCC Rcd 11407 ¶ 3 (2010).

See National Broadband Plan at 49; see also Petition of CRC Communications of Maine, Inc. and Time Warner Cable Inc. for Preemption Pursuant to Section 253 of the Communications Act, as amended, Declaratory Ruling, 26 FCC Rcd 8259 ¶ 27 (2011) ("CRC Declaratory Ruling").

carriers can rely on common infrastructure to generate multiple revenue streams from voice and broadband services, the economics supporting facilities deployment become more favorable, especially in rural areas. Rural America comprises the largest portion of unserved and underserved broadband population. It has previously been estimated that making broadband fully available to rural America could have resulted in almost 117,000 jobs being created or saved between 2011 and 2014, and an average median income increase per county of \$1,201. But a lack of access to broadband services affects far more than employment statistics. As another recent study acknowledging the broadband gap dividing rural America from the rest of the country succinctly put it:

The Internet has transformed commerce, brought new education opportunities, enhanced financial services, facilitated medical treatments across great distances, and even offered a strengthened sense of community. Those who do not have access to the capability of broadband are effectively not able to participate in something that accounts for a growing share of the American standard of living.²²

Rural America will be left behind and denied the promise of these benefits without the necessary framework for competitive providers to interconnect—a necessary predicate to the provisioning of services ²³

As communications technology continues to evolve and service providers increasingly embrace Internet Protocol, maintaining the core principle of seamless connectivity remains as vital as ever. As CCA has explained in other contexts, IP-to-IP interconnection helps ensure that

Dr. Raul L. Katz, et al., Telecom Advisory Services, LLC, Economic Impact of Wireless Broadband in Rural America 8-9 (2011), available at http://www.teleadvs.com/wp-content/uploads/RCA_FINAL.pdf.

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See id.

Hanns Kuttner, Hudson Institute, Broadband for Rural America: Economic Impacts and Economic Opportunities 18 (Oct. 2012), *available at* http://www.hudson.org/files/publications/RuralTelecom-Kuttner--1012.pdf.

See National Broadband Plan at 49.

competitive carriers with IP-based networks can avoid the needless costs and inefficiencies associated with converting traffic to legacy formats when interconnecting,²⁴ and that service quality and innovation do not suffer as a result of this costly and complex conversion.²⁵

As a legal matter, the Commission already has recognized that the interconnection provisions of Sections 251 "are technology neutral—they do not vary based on whether one or both of the interconnecting providers is using TDM, IP, or another technology in their underlying networks." This interpretation finds strong support in the plain language of Sections 251(a), (b), and (c), none of which differentiate among network technologies. Section 251(a) requires all telecommunications carriers "to interconnect [their networks] directly or indirectly with the facilities and equipment of other carriers," and makes no reference to any particular type of technology or protocol. Section 251(b)(5) likewise requires local exchange carriers ("LECs") "to establish reciprocal compensation arrangements for the transport and termination of telecommunications"—another obligation that does not vary according to the underlying network

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See CCA IP Interconnection Reply at 7 (explaining that, "[u]nder an IP interconnection framework, the need for wireless carriers to establish and maintain hundreds or thousands of individual points of interconnection ('POIs') throughout the country would be eliminated and replaced by an immensely more efficient system requiring a mere handful of IP handoff points').

See id. at 7-8; see also Comments of Sprint Nextel Corporation, WC Docket No. 10-90 et al., at 17-21 (filed Feb. 24, 2012) (demonstrating, as part of a detailed analysis of the costs of IP-based interconnection as compared to traditional TDM interconnection, the ways in which the transition to IP would generate substantial cost efficiencies that would flow through to consumers); Comments of T-Mobile USA, Inc., WC Docket No. 10-90 et al., at 4 (filed Feb. 24, 2012) (explaining the ways in which IP-to-IP interconnection is superior to TDM interconnection in a number of other important qualitative respects, including redundancy and security).

CAF FNPRM ¶ 1342.

⁴⁷ U.S.C. § 251(a)(1); *see also CAF FNPRM* ¶ 1352 (recognizing that Section 251(a)'s requirements "are technology neutral on their face with respect to the transmission protocol used for purposes of interconnection").

technology.²⁸ Section 251(c)(2) further requires ILECs to "to provide, for the facilities and equipment of any requesting telecommunications carrier, interconnection with the local exchange carrier's network . . . for the transmission and routing of telephone exchange service and exchange access,"²⁹ and to interconnect with requesting carriers "at any technically feasible point"³⁰—again without any technology-based limitations. The Commission also has explained that the duty of good faith negotiation under Section 251(c) "does not depend upon the network technology underlying the interconnection, whether TDM, IP, or otherwise."³¹ Moreover, the fact that Sections 251(c)(2)(C) and (D) require that interconnection arrangements be "at least equal in quality to that provided by the [LEC] to itself" and available on "nondiscriminatory" terms bolsters the Commission's authority to mandate IP interconnection in cases where ILECs rely on such technology to route their own telecommunications traffic.³²

Although ILECs historically have resisted the continued application of Section 251 interconnection obligations as network technologies evolve, the Commission has consistently reaffirmed that these obligations are technology-neutral and apply with equal force to IP-based voice services. For instance, the Commission recently reaffirmed the rights of telecommunications carriers carrying IP-based traffic "to interconnect and exchange traffic with incumbent LECs . . . including for the specific purpose of providing wholesale services to interconnected VoIP providers." According to the Commission, "the regulatory classification of the service provided to the ultimate end user *has no bearing*" on wholesale intercarrier

²⁸ 47 U.S.C. § 251(b)(5).

²⁹ *Id.* § 251(c)(2).

³⁰ *Id.* § 251(c)(2)(B).

CAF FNPRM ¶ 1011.

³² *Id.* §§ 251(c)(2)(C), (D).

³³ *CRC Declaratory Ruling* \P 26.

rights.³⁴ Consistent with this approach, the Commission also has held on numerous occasions that a LEC's use of IP equipment within its telecommunications network does not affect the service's regulatory classification or alter the LEC's regulatory obligations under the Act.³⁵ This precedent confirms that as network technologies continue to change—from manual switching to analog electronic switching to digital circuit switching and TDM and now to IP—the obligations of ILECs to provide interconnection and exchange telecommunications traffic remain in place.

AT&T contends in its Petition that the continued application of "legacy regulations" premised on ILECs' market power is unwarranted "in an all-IP broadband marketplace that other providers currently lead." But this view ignores the inherent competitive advantages that AT&T and other ILECs enjoy from their preexisting and pervasive telecommunications networks, which were developed and deployed across the country over the course of decades. Indeed, the interconnection mandates and arbitration provisions of Sections 251 and 252 were founded on concerns over the ubiquity of ILECs' voice networks and the resulting ability of

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Time Warner Cable Request for Declaratory Ruling that Competitive Local Exchange Carriers May Obtain Interconnection Under Section 251 of the Communications Act of 1934, as Amended, to Provide Wholesale Telecommunications Services to VoIP Providers, Memorandum Opinion and Order, 22 FCC Rcd 3513 ¶ 15 (WCB 2007) (emphasis added).

See, e.g., Petition for Declaratory Ruling that AT&T's Phone-to-Phone IP Telephony Services are Exempt from Access Charges, Order, 19 FCC Rcd 7457 ¶ 12 (2004) (holding that a service in which calls originate and terminate in TDM format but are transported in IP format at some intermediate point nonetheless qualify as a telecommunications service); Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 14853 ¶ 9 (2005) (explaining that broadband Internet access service is distinct from broadband/IP services used "for basic transmission services," and holding that the latter category remained subject to Title II regulation); Regulation of Prepaid Calling Card Services, Declaratory Ruling and Report and Order, 21 FCC Rcd 7290 ¶ 20 (2006) (holding that prepaid calling card services that use IP transport are still best classified as telecommunications services, not information services).

AT&T Petition at 6.

ILECs to exercise market power to undermine voice competition. These public policy concerns are not affected by the switching and routing technology used in connection with ILEC loops and transport facilities. Notably, the Commission has recognized that the advantages of ubiquitous network connectivity justify the continued application of interconnection mandates even in areas where robust facilities-based competition between ILECs and cable telephony providers has emerged.³⁷ Because competitive carriers cannot come close to matching the ubiquity of ILEC networks, basic interconnection regulation remains both necessary and appropriate in the telecommunications arena, including with respect to IP telecommunications traffic.

II. THE COMMISSION SHOULD DECLINE NTCA'S PROPOSALS TO GRANT ADDITIONAL AND UNWARRANTED SUBSIDIES TO RLECS AS PART OF THE TDM-TO-IP TRANSITION

While CCA supports NTCA's call for greater regulatory predictability regarding the Section 251 interconnection obligations for IP-based networks, CCA views certain other proposals in NTCA's Petition, including its requests for further government subsidies to RLECs to fund the deployment of such networks, with skepticism. For example, NTCA proposes that the Commission provide RLECs with an "incentive to offer IP interconnection" by establishing rates that would "allow[] them to recover . . . the costs of exchanging traffic through such interconnects." In essence, NTCA asks the Commission to replace the intercarrier compensation regime that has prevailed during the TDM age—a system that the Commission is working assiduously to phase out—with a successor regime in the age of IP-based networks. But

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See, e.g., Petition of Qwest Corporation for Forbearance Pursuant to 47 U.S.C. § 160 in the Omaha Metropolitan Statistical Area, Memorandum Opinion and Order, 20 FCC Rcd 19415 ¶ 86 (2005) (recognizing that, even though the emergence of facilities-based competition in Omaha justified forbearance from unbundling requirements, granting forbearance from interconnection requirements would be inappropriate because the ILEC, as the only carrier with a ubiquitous network, would retain "the ability to exercise market power over interconnection").

NTCA Petition at 14.

it is not at all clear why the march towards *more* efficient IP technology—which itself will yield cost savings for ILECs—should be encumbered by an inefficient and discredited system of intercarrier payments that would enable RLECs to impose artificially high rates for IP interconnection. Indeed, given the mutual benefits of IP interconnection for RLECs and competitive carriers, there is no need for any compensation for the reciprocal exchange of telecommunications traffic, much less a regime that places a thumb on the scale in favor of RLECs.

NTCA also urges the Commission to "encourage" the TDM-to-IP transition by "providing small rural local exchange carriers with sufficient and predictable universal service support for networks regardless of whether a customer continues to purchase regulated 'plain old telephone service.'"³⁹ But the Petition falls short of explaining why additional subsidies are necessary to support RLECs' transition from TDM to IP, particularly where, under the *USF/ICC Transformation Order*, RLECs already are slated to "receive approximately \$2 billion per year in total high-cost universal service support" through 2017.⁴⁰ As CCA has emphasized in ongoing universal service reform proceedings, RLECs receive far more support than necessary, while wireless carriers unjustifiably have seen their support slashed in spite of growing demand for mobile services.⁴¹ The last thing the Commission should do in furtherance of the transition to IP networks is to skew universal service support even more towards ILECs; such an approach would only entrench reliance on TDM facilities, unnecessarily subsidize outdated technologies, and impede progress. Notably, NTCA asserts earlier in its Petition that RLECs "have been at the

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³⁹ *Id.* at 15.

USF/ICC Transformation Order \P 27.

See, e.g., Ex Parte Letter of RCA — The Competitive Carriers Association, WC Docket No. 10-90 *et al.* (Aug. 3, 2012).

forefront of this evolution" to IP-based networks, "leveraging entrepreneurship, private capital, universal service support, [and] intercarrier compensation . . . to make responsible and 'commendable' progress thus far in deploying broadband-capable networks and cutting-edge, IP-enabled switching/routing platforms." In light this claimed progress made by RLECs using a combination of private funding and existing public subsidies, it is entirely unnecessary for the Commission to funnel additional universal service dollars toward RLECs' IP transition.

NTCA Petition at 3 (internal citation omitted).

CONCLUSION

CCA strongly supports the Commission's efforts to facilitate the transition from TDM to

IP voice telephony networks, and looks forward to the day when the industry as a whole has

abandoned outmoded circuit-switched telecommunications networks in favor of far more

efficient packet-switched networks. But the transition to IP neither requires nor allows for the

elimination of the important interconnection and arbitration safeguards enacted by Congress

under Sections 251 and 252 of the Act, nor does it warrant the outlay of additional government

funding to RLECs. CCA looks forward to working with the Commission on establishing the

appropriate regulatory framework for promoting the TDM-to-IP transition while also protecting

the interests of competitive carriers and their customers.

Respectfully submitted,

/s/ Rebecca Murphy Thompson

Steven K. Berry

Rebecca Murphy Thompson

COMPETITIVE CARRIERS ASSOCIATION

805 15th Street NW, Suite 401

Washington, DC 20005

January 28, 2013

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